Distributed by:

JAMECO® ELECTRONICS

www.Jameco.com ✦ 1-800-831-4242

The content and copyrights of the attached material are the property of its owner.

Jameco Part Number 210788

SPECIFICATION

for

30 WATTS

TRIPLE OUTPUTS

SWITCHING POWER SUPPLY

M/N: **SNP-9031**

SKYNET ELECTRONIC	Prepared by: 林顯達 031794
	Tested by: 梁進添 3-17-94
LAST REV. NO. 9031-052794	Released by: 梁進添代 3-17-94

1.0 INTRODUCTIONS

The SNP-903 1 is a triple outputs 30 Watts universal input power supply for general purpose application.Comply with Vfg 243 & FCC B EMI conductive limits.

2.0 INPUT SPECIFICATIONS

2.1 Input Voltage

The range of input voltage is from 90VAC to 264VAC.

2.2 **Input frequency**

The range of input frequency is from 47HZ to 63HZ.

2.3 **Input current**

The maximum input current is 1A at 115VAC or 0.5A at 230VAC.

2.4 **Inrush current**

The inrush current will not exceed 30A at 115VAC input or 60A at 230V AC input, cold start, 25°C.

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

output	min. load	rated load	peak load	voltage accuracy
+5V	OA	2A	3A	4.95V to 5.05V
+12V	OA	1.5A	3 A	11.40V to 12.60V
-12v	OA	0.3A	0.5A	-1 1.00V to -13.00V

At factory, all outputs in 60% rated load conditions, the +5V output is set to between 4.95V and 5.05V, and + -12V is checked to be within the specified voltage accuracy range.

3.2 Ripple and noise

The peak to peak ripple and noise for each output is less than 1% of output voltage at rated load. Measuring is done by 15 MHz band width limited oscilloscope and terminated each output with a 0.47uF capacitor .

3.3 Line regulation

The line regulation for each output is less than + - 1% while measuring at rated load and + - 10% of input voltage changing.

3.4 Load regulation

The load regulation for +5V is less than + -1%, for + -12V are less than + -4%, measuring is done by changing the measured output load + -40% from 60% rated load, and keep other outputs at 60% rated load.

4.0 GENERAL FEATURES

4.1 Effkiency

The efficiency is higher than 70% while measuring at nominal line and rated load.

4.2 Hold up time

The hold up time is 20mS typ. at 115VAC input and rated load,which is measured from the and of the last charging pulse to when the main output‘drops down to 95% output voltage.

4.3 Protection

For some reason the power supply fails to control itself, the build-in over voltage protection circuit will shut down the outputs to avoid damaging external circuits. The trip point of crowbar circuit is around 5.9V to 7.0V. The power supply will go into hiccup mode against short circuit or over load conditions, and will auto-recovery while faulty conditions removed.

5.0 ENVIRONMENT SPECIFICATIONS

5.1 Operating temperature

0°C to 50°C

5.2 **Storage temperature**

-40°C to 85°C

5.3 **Altitude**

Will operate properly at any altitude between 0 to 10000 ft.

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

Designed to meet the following standards :

UL 1950 D3

CSA 22.2 NO. 234

VDE EN 60 950

6.2 **EM1 standards**

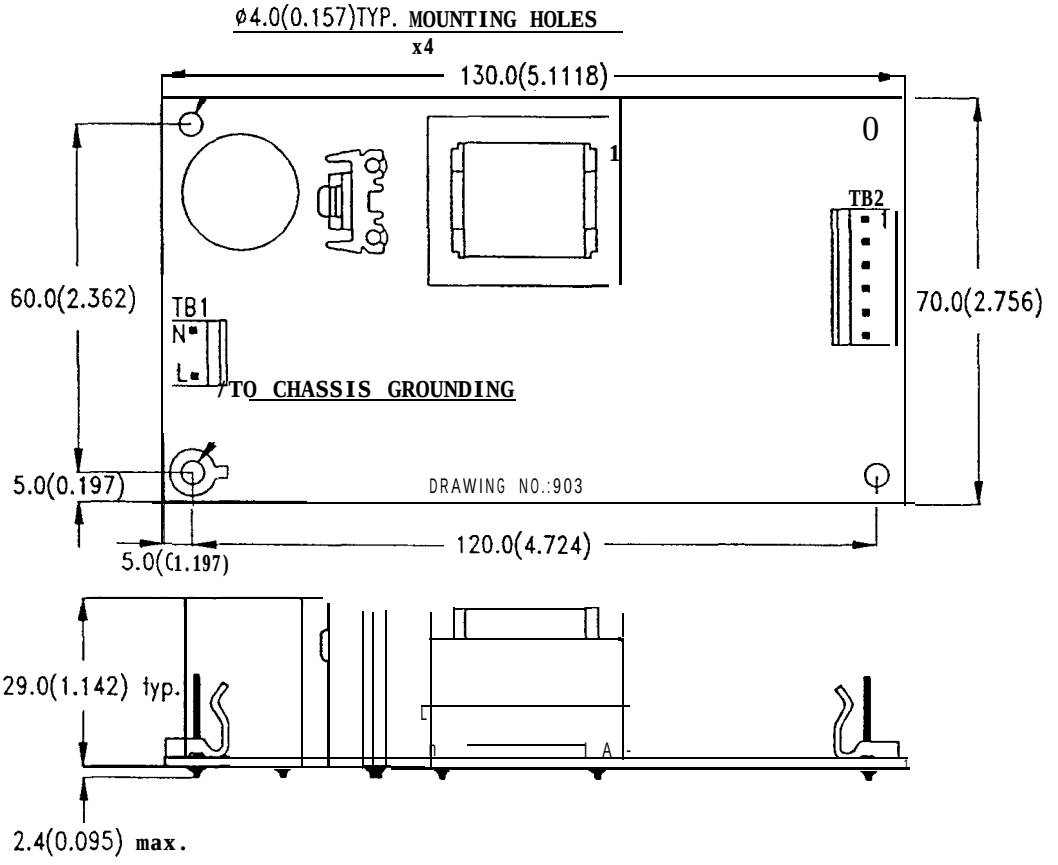
Designed to meet the following conducted limits :

FCC docket 20780 curve "B"

Vfg 243

7.0 MECHANICAL SPECIFICATION

SIZE : 70mm x 130mm x 32.1mm



7.1 Dimensions

Dimensions shown in mm (inch) as above. Tolerance specified is + - 0.4 mm.

7.2 **Connectors**

TB 1 --AC input : using Molex 5277-2 or equivalent.

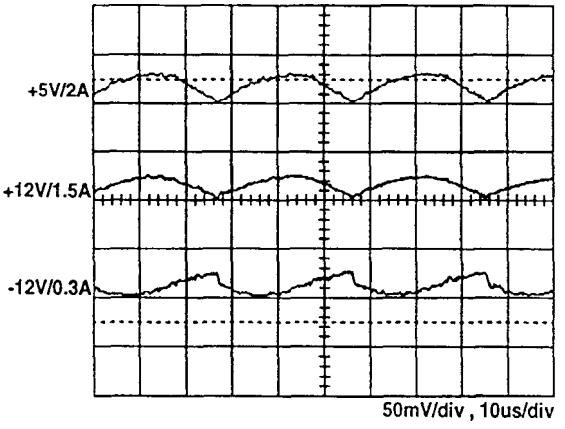
TB2--DC output : using Molex 5273-6 or equivalent.

7.3 **DC output pin assignment**

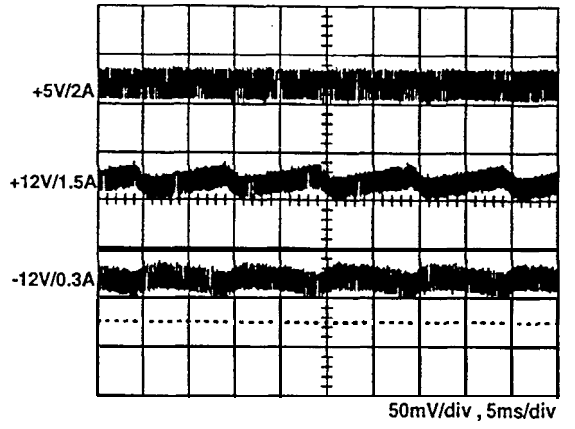
Pin	**1**	+5V
	2	+5V
	3	**GND**
	4	GND
	5	-12v
	6	+12V

8.0 PERFORMANCE

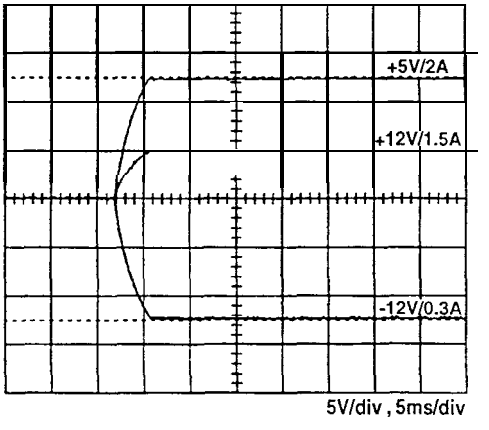
8.1 Switching frequency ripple



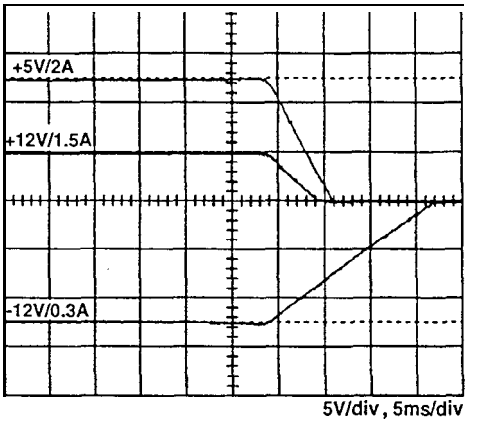
8.2 Line frequency ripple



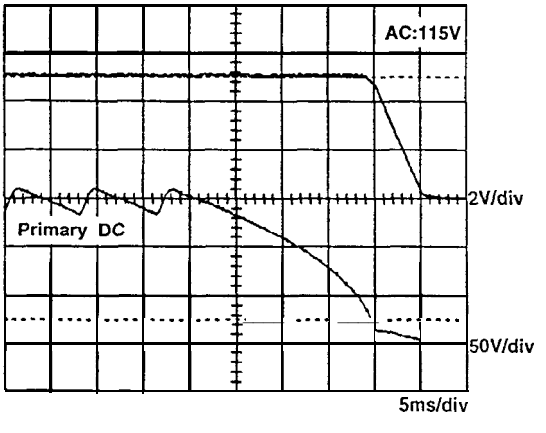
8.3 Output turn on wave form



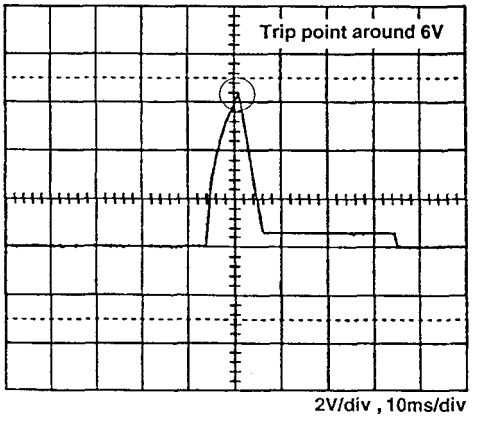
8.4 Output turn off wave form



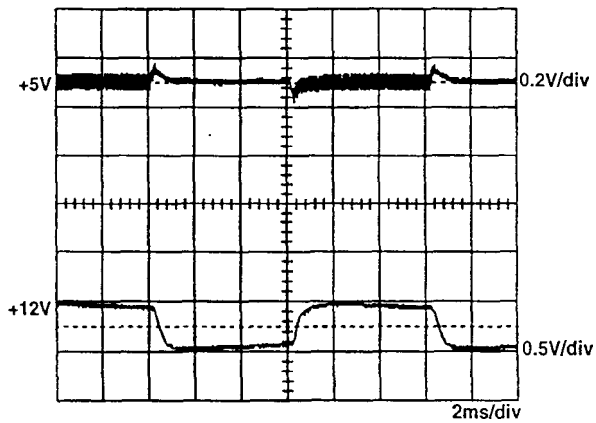
8.5 Hold-up time



8.6 Over voltage protection

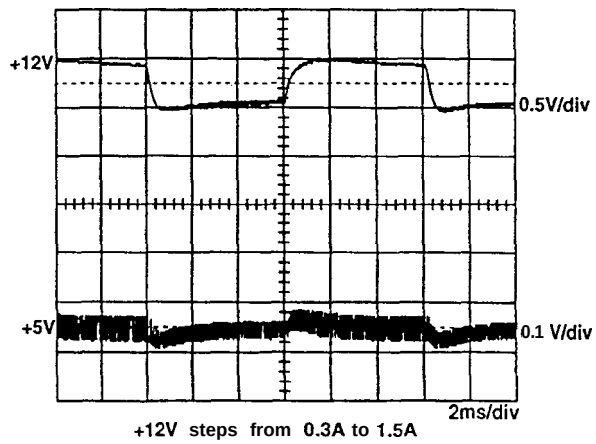


8.7 +5V step response



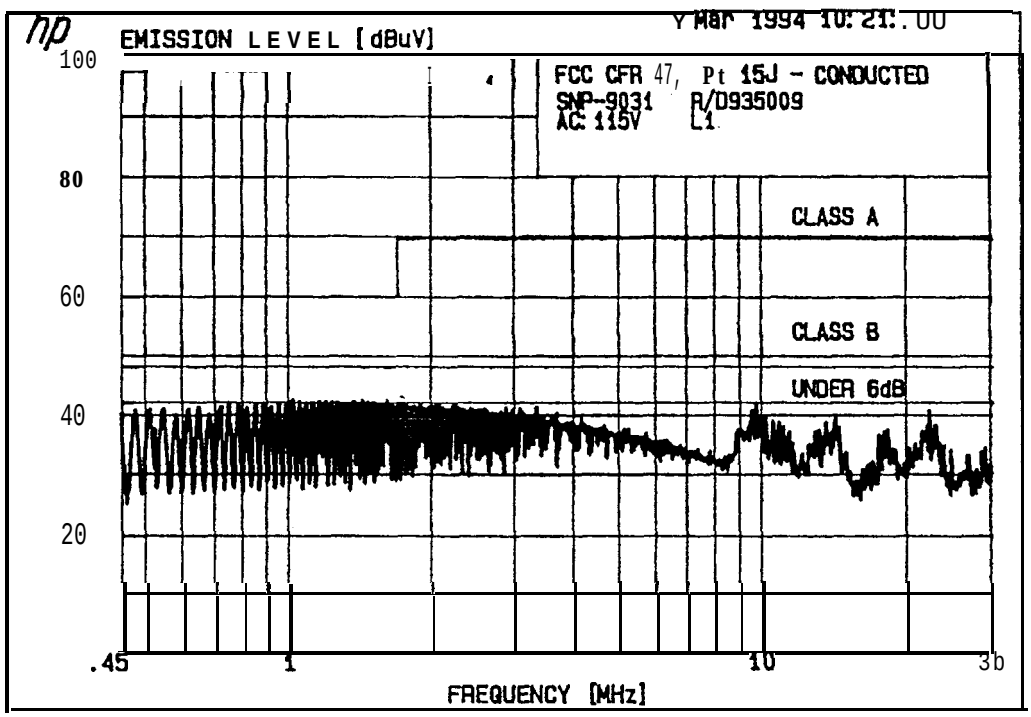
+5V steps from 0.4A to 2A
other output at 60% load

8.8 +12V step response

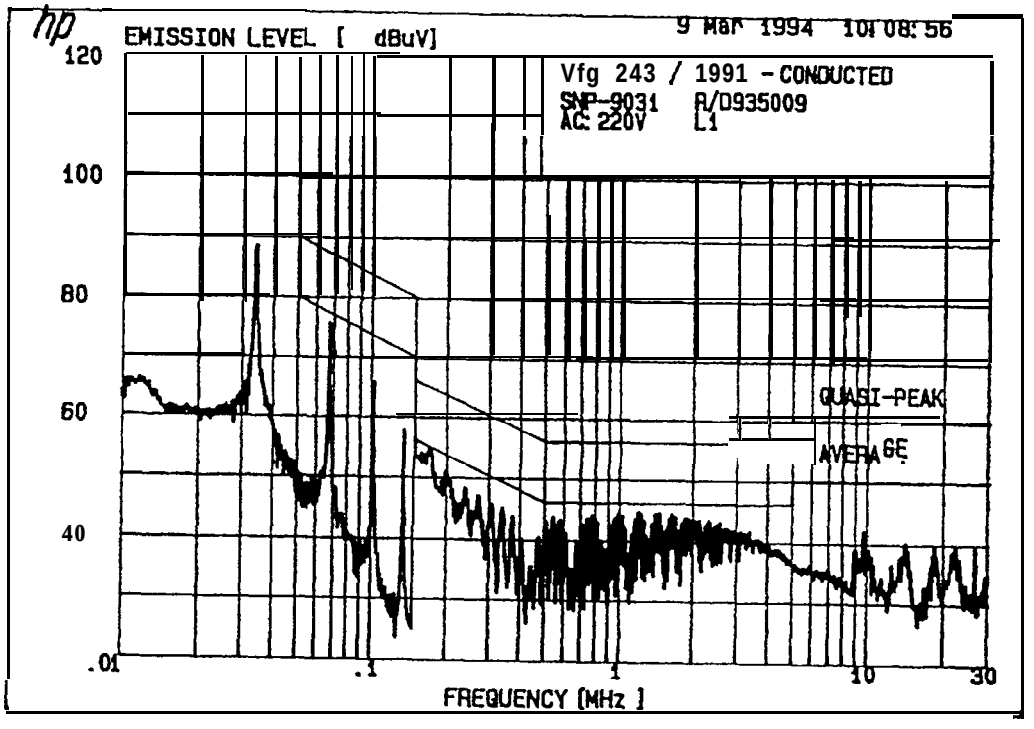


+12V steps from 0.3A to 1.5A
other output at 60% load

8.9 FCC B performance



8.10 VFG 243


hp
EMISSION LEVEL [dBuV]
9 Mar 1994 10:08:56
Vfg 243 / 1991 - CONDUCTED
SNP-9031 A/0935009
AC 220V L1
120
100
80
60
40
.01
.1
1
10
30
QUASI-PEAK
AVERAGE
FREQUENCY [MHz]